



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,621	03/08/2001	Jan Gerben Wijnstra	NL000122	8300

24737 7590 06/14/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

PATEL, HARESH N

ART UNIT PAPER NUMBER

2154

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,621

Applicant(s)

WIJNSTRA, JAN GERBEN

Examiner

Haresh Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-7 are subject to examination.

Response to Arguments

2. Applicant's arguments filed 3/28/2006, pages 4-9, have been fully considered but they are not persuasive. Therefore, rejection of claims 1-7 is maintained.

Applicant argues (1), "McDevitt does not teach a family or group of systems, shared architecture, computer architecture and it needs a user to interaction compared to the claimed invention in which no user interaction is needed".

The examiner respectfully disagrees in response to applicant's arguments. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, "the claimed invention in which **no user interaction is needed, computer architecture**", are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The First inquiry must be into exactly what the claims define. See *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970). What is claimed is, software architecture and a family / group of systems, shared architecture see claims 1 and 7, which is related to the above arguments.

McDevitt clearly discloses a family / group of system, e.g., **array** system col., 2, lines 3 – 38, shared architecture, e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425. Since, applicant's claims contain broadly claimed subject matter, it clearly

Art Unit: 2154

reads upon the examiner's interpretation of the claimed subject matter. Therefore, the rejection is maintained.

Applicant argues (2), "It is not well-known in the art to provide skelton software architecture having both generic and specific requirements".

The examiner respectfully disagrees in response to applicant's arguments.

For example, Bowman-Amuah, U.S. 2003/0058277, March 27, 2003, discloses these limitations, i.e., skelton software architecture having both generic and specific requirements, e.g., paragraphs 1961, 1962, 3346 and 3348. Chandy et al., 6,898,791, discloses these limitations, e.g., paragraph 8 of Brief Summary of Text, paragraphs 135 and 208 of Detailed Description Text. Myers, Jr. et al., 6,961,687, discloses these limitations, e.g., paragraphs 15, 24 and 31 of Detailed Description Text. Hartley et al., 6,532,465, discloses these limitations, e.g., paragraph 4 of Detailed Description Text. Seidl, 5,710,896, discloses these limitations, e.g., paragraph 15 of Detailed Description Text. Bowman-Amuah, 6,529,909, discloses these limitations, e.g., paragraphs 975 and 976 of Detailed Description Text. Arunanchalam et al., 6,631,122, Nortel Networks Limited, discloses these limitations, e.g., teachings of usage of various classes along with specific QoS requirements, Service Level Agreement, and Qos framework, e.g., paragraph 15 of Detailed Description Text. Also, **applicant's admitted prior art (AAPA)**, pages 4 and 5 submitted on 2/5/2004 **specifically mentioning 1995 teachings** / discloses for these limitations.

Therefore, the rejection is maintained.

Applicant argues (3), "cited reference McDervitt, U. S. Publication 2003/0186228 (Hereinafter McDervitt) fails to discloses the limitations, "the software program comprising a

Art Unit: 2154

skeleton software architecture of generic and specific requirements, wherein said generic requirements focuses on generic meaning of service interfaces and said specific requirements provides for service specific issues”, and “neither McDervitt nor Skeen, 5,257,369 nor Java 2 Platform, Enterprise edition, J2EE, Sun Microsystems, 12/17/1999. (Hereinafter Shannon-Sun) teach or suggest all elements recited in the claims”.

The examiner respectfully disagrees in response to applicant's arguments. The claims 1, 2, 6 and 7 are rejected by combined teachings of McDervitt and Skeen. The claims 3-5 are rejected by combined teachings of McDervitt, Skeen and Shannon-Sun. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

McDevitt discloses managing a family of systems having a shared family architecture (e.g., component-based techniques, and/or object-oriented techniques, col., 43, paragraph 425) based upon commonly used generic blocks of software (e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425) and wherein a component framework that comprises software architecture (e.g., component-based techniques and/or object-oriented techniques, col., 43, paragraph 425) and supports participating software plug-in components (e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425); individual software plug-in components provides one or more services/functions (e.g., inherent functionality of Javabeans, paragraph 425). Skeen discloses generic and specific requirements (e.g., col., 25, lines 28 - 53, figure 16), wherein said generic requirements focuses on generic

Art Unit: 2154

meaning of service interfaces and said specific requirements provides provide for specific issues (e.g., col., 25, lines 28 - 53, figure 16). Shannon-Sun, discloses the inventory function including initializing the services (e.g., use of interfaces and classes to initialize services, section 2.1, chapter 2), assesses available services at initialization of the system or during run-time of the system (e.g., use of interfaces and classes to evaluate present services, section 2.1, chapter 2), and maintains a list of available services (e.g., use of interfaces and classes to monitor the present number of services in the system, section 2.1, chapter 2). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Regarding well known limitations in the art, i.e., providing a skeleton software architecture having both generic and specific requirements, for example, Bowman-Amuah, U.S. 2003/0058277, March 27, 2003, discloses these limitations, e.g., paragraphs 1961, 1962, 3346 and 3348. Chandy et al., 6,898,791, discloses these limitations, e.g., paragraph 8 of Brief Summary of Text, paragraphs 135 and 208 of Detailed Description Text. Myers, Jr. et al., 6,961,687, discloses these limitations, e.g., paragraphs 15, 24 and 31 of Detailed Description Text. Hartley et al., 6,532,465, discloses these limitations, e.g., paragraph 4 of Detailed Description Text. Seidl, 5,710,896, discloses these limitations, e.g., paragraph 15 of Detailed Description Text. Bowman-Amuah, 6,529,909, discloses these limitations, e.g., paragraphs 975 and 976 of Detailed Description Text. Arunachalam et al., 6,631,122, Nortel Networks Limited, discloses these limitations, e.g., teachings of usage of various classes along with specific QoS requirements, Service Level Agreement, and Qos framework, e.g., paragraph 15 of Detailed Description Text. Since, applicant's claims contain broadly claimed subject matter, it clearly reads upon the examiner's

Art Unit: 2154

interpretation of the claimed subject matter. For example, limitations, "architecture of generic and specific requirements", is broadly interpreted as one generic requirement (single) and one specific requirement (single); limitations, "said specific requirements provides for", is broadly interpreted as the specific requirement provides "something", "nothing", "anything", or "generic item", since what is provided is not mentioned; limitations, "service specific issues", that is after usage of "for" is not limited to what is not provided. The limitations, "issues" is broadly interpreted as topic, matter or subject. As mentioned above, the limitations are disclosed by the combined teachings of cited references. Therefore, the rejection is maintained.

Applicant argues (4), "Teachings of McDevitt, Skeen and Shannon-Sun are improperly combined, and there is not motivation or suggestion and a reasonable expectation of success".

The examiner respectfully disagrees in response to applicant's arguments. McDevitt clearly indicates that his invention can utilize known prior techniques and can be modified (e.g., paragraph 626, col., 64). Also, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). The motivation to combine the references is to utilize well-known concept of Skeen's teachings of generic requirements and specific requirements that would help the system to handle interfaces for the services differently. The teachings of Shannon-Sun, for example, the interfaces and classes that can help initializing the services, assessing available services, and maintaining a list of available services would help

Art Unit: 2154

develop a system to handle the services for the system. The combined teachings of McDevitt, Skeen and Shannon-Sun accomplish the broadly claimed invention. Therefore, the rejection is maintained.

Drawings

3. New corrected drawings are required in this application because Figure 1 does not show claimed invention, “a computer program for managing a family of systems having a shared family architecture based upon commonly used generic building blocks of software and wherein a component framework that comprises a skeleton of software architecture of generic and specific requirements, wherein said generic requirements focuses on generic meaning of service interfaces and said specific requirements provides for service specific issues and supports participating software plug-in components, manipulate hardware associated with the component framework, complex system comprising an x-ray examination apparatus”. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled --Replacement Sheet-- in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the

Art Unit: 2154

next Office action. The objection to the drawings will not be held in abeyance. Note: this rejection is maintained from previous office action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDevitt et al. "Portable sensor array system", US Publication, 2003/0186228 A1 Oct., 2, 2003 (Hereinafter McDevitt) in view of Skeen et al. 5,257,369 (Hereinafter Skeen) and "Official Notice".

6. As per claim 1, McDevitt teaches a computer readable medium containing a computer program for managing a family of systems having a shared family architecture (e.g., component-based techniques, and/or object-oriented techniques, col., 43, paragraph 425) based upon commonly used generic blocks of software (e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425) and wherein

a component framework that comprises a skeleton of software architecture (e.g., component-based techniques and/or object-oriented techniques, col., 43, paragraph 425) and supports participating software plug-in components (e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425);

individual software plug-in components provides one or more services/functions (e.g., inherent functionality of Javabeans, paragraph 425); and

the component framework defines roles/actions (e.g., configuration of analysis software by the component-based techniques and/or object oriented techniques, col., 43, paragraph, 423) providing one or more common interfaces for communication of series of several plug-in components (e.g., use of component-based and/or object-oriented interfaces, col., 43, paragraph 419 and 420) that manipulate hardware associated with the component framework (e.g., parts the system to serve patient, i.e., x-ray detector/sensor/bed, utilizing component-based techniques and/or object-oriented techniques, col., 43, paragraph 419 and 420, col., 16, paragraphs 187-194).

McDevitt does not specifically mention about the generic requirements focuses on generic meaning of service interfaces and the specific requirements provides provide for specific issues”.

Skeen teaches the generic requirements focuses on generic meaning of service interfaces and the specific requirements provide for specific issues (e.g., col., 25, lines 28 - 53, figure 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of McDevitt and Skeen in order to facilitate utilizing specific requirements and generic requirements. The motivation would be obvious, because the system of McDevitt is implemented using the concept of component-based techniques, and/or object-oriented techniques, and with Skeen’s software architecture having generic requirements for generic service interfaces and specific requirements for specific issues, would help develop a system to handle interfaces for the generic services and special services.

McDevitt and Skeen do not specifically mention about a skeleton software architecture having both generic and specific requirements and the family of systems comprising at least one system.

“Official Notice” is taken that both the concept and advantages of providing a skeleton software architecture having both generic and specific requirements and the family of systems comprising at least one system is well known and expected in the art. For example, Bowman-Amuah, U.S. 2003/0058277, March 27, 2003, discloses these limitations, e.g., paragraphs 1961, 1962, 3346 and 3348. Chandy et al., 6,898,791, discloses these limitations, e.g., paragraph 8 of Brief Summary of Text, paragraphs 135 and 208 of Detailed Description Text. Myers, Jr. et al., 6,961,687, discloses these limitations, e.g., paragraphs 15, 24 and 31 of Detailed Description Text. Hartley et al., 6,532,465, discloses these limitations, e.g., paragraph 4 of Detailed Description Text. Seidl, 5,710,896, discloses these limitations, e.g., paragraph 15 of Detailed Description Text. Bowman-Amuah, 6,529,909, discloses these limitations, e.g., paragraphs 975 and 976 of Detailed Description Text. Arunanchalam et al., 6,631,122, Nortel Networks Limited, discloses these limitations, e.g., teachings of usage of various classes along with specific QoS requirements, Service Level Agreement, and Qos framework, e.g., paragraph 15 of Detailed Description Text. Also, **applicant's admitted prior art (AAPA)**, pages 4 and 5 submitted on 2/5/2004 discloses these limitations.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a skeleton software architecture having both generic and specific requirements with the teachings of McDevitt and Skeen in order to facilitate both generic and specific requirements and the family of systems comprising at least one system because the

Art Unit: 2154

generic requirements and specific requirements both would be utilized to provide functions supported by them. The generic requirements for generic service interfaces and specific requirements for specific issues would help develop a system to handle interfaces for the generic services and special services. See AAPA pages 4 and 5 for further motivations, for example, the objective of the family of complex systems is to enable people who are not experts in the problem domain to configure concrete products according to the needs.

7. As per claim 2, McDevitt also teaches the following
the component framework includes an inventory function for assessing available services in the participating plug-in components (e.g., central data service performing a test to check the available supporting services supported by the software modules, paragraph 460, col., 47).

8. As per claim 6, McDevitt also teaches the following
the family members are medical diagnostic systems comprising an x-ray examination apparatus (e.g., parts the system to serve patient, i.e., x-ray detector/sensor/bed, utilizing component-based techniques and/or object-oriented techniques, col., 43, paragraph 419 and 420, col., 16, paragraphs 187-194).

9. As per claim 7, McDevitt also teaches a complex system (e.g., portable sensor array system, title), comprising an x-ray examination apparatus having a computer readable-medium comprising software architecture (e.g., x-ray detector/sensor of the system utilizing component-

Art Unit: 2154

based techniques and/or object-oriented techniques, col., 43, paragraph 419 and 420, col., 16, paragraphs 187-194) and wherein

a component framework that comprises a skeleton of software architecture (e.g., component-based techniques, and/or object-oriented techniques, col., 43, paragraph 425) and supports participating software plug-in components (e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425);

individual software plug-in components (e.g., use of ActiveX controls, JavaBeans, Microsoft foundation classes, col., 43, paragraph 425) providing one or more services (e.g., inherent functionality of Javabeans, paragraph 425) including rotation displacements of components of an X-ray apparatus including X-ray source and X-ray detector, and a patient table (e.g., parts the system to serve patient, i.e., x-ray detector/sensor/bed, utilizing component-based techniques and/or object-oriented techniques, col., 43, paragraph 419 and 420, col., 16, paragraphs 187-194), and

the component framework defines roles/actions (e.g., configuration of analysis software by the component-based techniques and/or object oriented techniques, col., 43, paragraph, 423) that provide one or more common interfaces for communication of services of several participating software plug-in components (e.g., use of component-based and/or object-oriented interfaces, col., 43, paragraph 419 and 420).

10. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDevitt, Skeen and "Official Notice" in further view of Java 2 Platform, Enterprise edition, J2EE, Sun Microsystems, 12/17/1999. (Hereinafter Shannon-Sun).

Art Unit: 2154

11. As per claims 3-5, McDevitt and Skeen teach the claimed limitations rejected under claim 2. McDevitt and Skeen does not specifically mention about the claimed limitations of claims 3-5. Shannon-Sun, teaches a well known concept in the art to implement an inventory function utilizing APIs that can implement the claimed limitations of claims 3-5, the inventory function, includes initializing the services (e.g., use of interfaces and classes to initialize services, section 2.1, chapter 2), assesses available services at initialization of the system or during run-time of the system (e.g., use of interfaces and classes to evaluate present services, section 2.1, chapter 2), and maintains a list of available services (e.g., use of interfaces and classes to monitor the present number of services in the system, section 2.1, chapter 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of McDevitt, Skeen and Shannon-Sun in order to facilitate a function to initializing the services, assesses available services, and maintains a list of available service because McDevitt clearly mention that his system uses software modules to maintain the system, which are based on component-based techniques, and/or object-oriented techniques. Shannon-Sun discloses the interfaces and classes that can help initializing the services, assesses available services, and maintains a list of available services. The motivation would be obvious, because the system of McDevitt is implemented using the concept of component-based techniques, and/or object-oriented techniques, and with the well-known available interfaces and classes would help develop a system to handle the services for the system.

Conclusion

12. The prior art made of record (forms PTO-892 and applicant provided IDS cited arts) and not relied upon is considered pertinent to applicant's disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Examiner has cited particular columns and line numbers and/or paragraphs and/or sections and/or page numbers in the reference(s) as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety, as potentially teaching, all or part of the claimed invention, as well as the context of the passage, as taught by the prior art or disclosed by the Examiner.

Art Unit: 2154

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Haresh Patel

December 22, 2005